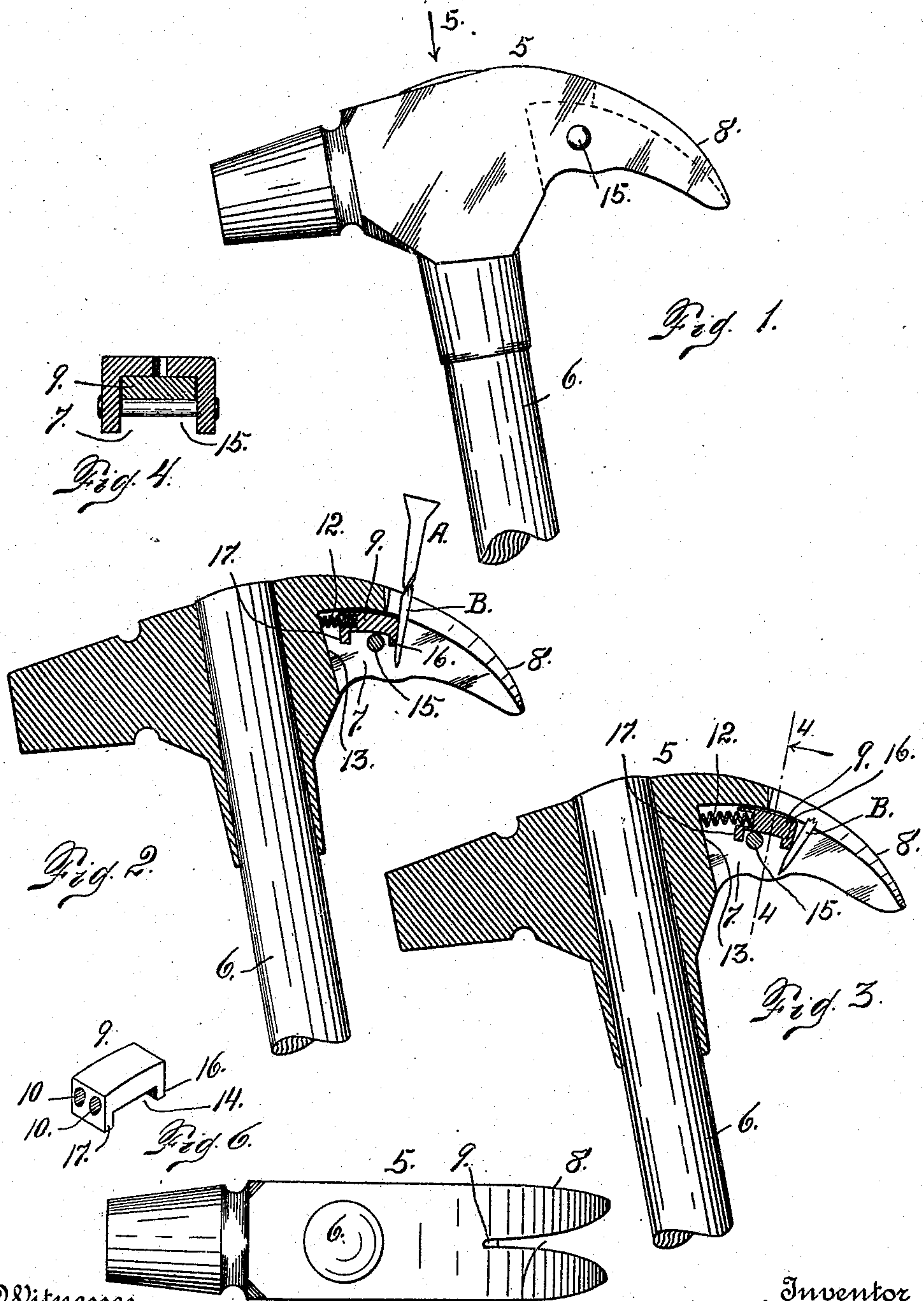


W. J. KELLY.
HORSESHOE NAIL DRIVING HAMMER.
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Patented Dec. 29, 1908.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM J. KELLY, OF DENVER, COLORADO.

HORSESHOE-NAIL-DRIVING HAMMER.

No. 908,008.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM J. KELLY, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Horseshoe-Nail-Driving Hammers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in hammers more especially adapted for use by horseshoers. In shoeing horses it is well known that the nails when driven through the hoof, protrude on the outside for a considerable distance. It is the custom of the workman to twist off these points by using the claw end of his hammer, the nail point being first passed through between the members of the claw, after which the hammer is given a twisting movement, whereby the protruding extremity of the nail is broken off or twisted off. This often causes the broken-off point, to adhere or stick within the claw of the hammer, with the result that considerable difficulty is often experienced in removing it.

The object of my improvement is, to equip the hammer with a device adapted to automatically disengage or loosen the nail point held by the hammer. This may be accomplished by a small block, slidably mounted in a groove formed in the claw end of the hammer. This block may be either spring-actuated or not as may be desired. If spring-actuated, it is pressed downwardly against its spring by the point of the nail and as soon as the latter is broken off, the recoil of the spring will act on the block, to cause the latter to loosen the nail point. If a spring is not used, the first blow of the hammer after the nail point has been caught in the claw, will cause the ejecting block to move against the nail point and loosen the same. Hence the spring may be used or not as may be desired.

Having briefly outlined my improved construction, I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a side eleva-

tion of a hammer equipped with my improvement. Fig. 2 is a central section taken through the hammer head showing a nail in place, the hammer having been turned to break off the nail by a twisting movement. Fig. 3 is a similar view showing the nail point in the act of falling from the hammer after it has been ejected by the block. Fig. 4 is a section taken through the hammer on the line 4—4 Fig. 3 viewed in the direction of the arrow. Fig. 5 is a top plan view of the hammer or a view looking in the direction of arrow 5 Fig. 1. Fig. 6 is a perspective view in detail of the ejecting block.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the hammer head provided with a handle 6 of suitable construction. The body of the hammer head may be of any desired form. The claw extremity thereof, however, is chambered out on the inside forming a cavity 7 which extends the entire length of the claw members 8 and also rearwardly therefrom, in order to make room for an ejecting block 9 which as shown in the drawing is recessed as shown at 10 to receive coil springs 12. One extremity of each spring is seated in a recess 10, while the opposite extremity of the spring bears against a wall 13 in the rear of the chamber 7. The ejecting block 9 is grooved on one side as shown at 14. A pin 15 is passed through the claw extremity of the hammer, entering openings formed in the walls on opposite sides of the chamber 7. This pin is so located that it enters the groove 14 of the ejecting block 9, and limits the movement of the said block since the latter is provided with forwardly and rearwardly located lips 16 and 17, in the path of which the pin lies. This pin is also so located that it prevents the block from moving away from the claw members of the hammer but is loosely held in place whereby it is allowed a free forward and backward movement. If the springs are employed the rearward movement is against the tension of the springs. If the springs are not employed the ejecting block simply moves rearwardly by gravity when the hammer head is in position to produce this result.

From the foregoing description the use and operation of my improved hammer will be readily understood. The driving extremity of the hammer may be of ordinary construction and is used in the usual way. After

driving a nail A through the shoe and into the hoof of the animal whereby the nail is caused to protrude beyond the hoof, the claw extremity of the hammer is applied to the protruding extremity B of the nail, which is then caught within the V-shaped space 18 between the claw members of the hammer. During this operation the nail is caused to press the ejecting block 9 rearwardly against its springs 12, whereby the latter are placed under tension. As soon as this is done, the hammer is given a twisting movement whereby the protruding extremity B of the nail is broken off. As soon as this occurs the recoil of the springs 12 acting on the ejecting block, drives the latter forwardly, ejecting the broken off nail point B, as illustrated in Figs. 2 and 3. Or if the spring is not used, the nail point is broken off as heretofore described and assuming that it sticks within the claw, the first time the user strikes a blow with the hammer, the ejecting block is given a forward movement and brought in contact with the point of the nail with sufficient force to remove the latter in the same manner as when the block is actuated by the springs.

Having thus described my invention, what I claim is:

1. A hammer of the class described provided with a claw extremity, and an ejecting block movably mounted on the claw extremity of the hammer and adapted to bridge the V-shaped space formed between the claw members of the hammer, substantially as described.

2. The combination with a hammer head provided with a claw extremity, of an ejecting block movably mounted in the claw extremity of the hammer and adapted to bridge the rear portion of the V-shaped space between the two claw members of the hammer, substantially as described.

3. The combination of a hammer head having a claw extremity fashioned to form a chamber extending rearwardly from the V-shaped space between the claw members, and an ejecting device movably mounted in the said chamber and adapted to bridge the rear portion of the space between the claw members of the hammer, substantially as described.

4. The combination of a hammer head provided with a claw extremity having an interior chamber in communication with the space between the two claw members and extending rearwardly therefrom, an ejecting block movably mounted in the said chamber, and an ejecting-block-retaining pin passed transversely through the said chamber and engaging openings formed in the walls of the hammer on opposite sides of the chamber, substantially as described.

5. The combination with a hammer having a claw extremity, of a nail point ejecting block movably mounted on the claw extremity of the hammer, substantially as described.

6. The combination with a hammer head, of a nail - point - ejecting - block movably mounted in the claw extremity of the hammer, and means for retaining the block in operative relation with the hammer head, substantially as described.

7. The combination with a hammer head having a claw extremity, of a spring-actuated nail - point - ejecting - block mounted on the claw extremity of the said head, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. KELLY.

Witnesses:

DENA NELSON,
A. J. O'BRIEN.